

What is claimed is:

1. A bacterium belonging to the genus *Escherichia*, wherein L-threoine resistance of said bacterium is enhanced by enhancing an activity of protein as defined in the following (A) or (B) in a cell of said bacterium:

(A) a protein which comprises the amino acid sequence shown in SEQ ID NO: 4 in Sequence Listing; or

(B) a protein which comprises the amino acid sequence including deletion, substitution, insertion or addition of one or several amino acids in the amino acid sequence shown in SEQ ID NO: 4 in Sequence Listing, and which has an activity of making a bacterium having the protein L-threonine-resistant.

2. The bacterium according to claim 1, wherein L-homoserine resistance of said bacterium is further enhanced by enhancing an activity of protein as defined in the following (C) or (D) in a cell of said bacterium:

(C) a protein which comprises the amino acid sequence shown in SEQ ID NO: 2 in Sequence Listing; or

(D) a protein which comprises the amino acid sequence including deletion, substitution, insertion or addition of one or several amino acids in the amino acid sequence shown in SEQ ID NO: 2 in Sequence Listing, and which has an activity of making a bacterium having the protein L-homoserine-resistant.

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4. The bacterium according to claim 2, wherein said activity of protein as defined in (C) or (D) is enhanced by transformation of said bacterium with DNA coding for the protein as defined in (C) or (D).

cultivating the bacterium as defined in any one of claims 1 to 4, which has an ability to produce the amino acid, in a culture medium, to produce and accumulate the amino acid in the medium, and

6. The method according to claim 5, wherein said amino acid is selected from the group consisting of L-homoserine, L-threonine and branched chain amino acids.

8. A DNA which encode a protein defined in the following (A) or (B):

(B) a protein which has the amino acid sequence of SEQ ID NO: 4 including substitution, deletion, insertion, addition, or inversion of one or several amino acids,

and has an activity of making a bacterium having the protein L-threonine-resistant.

9. The DNA of claim 8 which is a DNA defined in the following (a) or (b):

(a) a DNA which comprises the nucleotide sequence of nucleotide numbers 187 to 804 in SEQ ID NO: 3;

(b) a DNA which is hybridizable with a nucleotide sequence of nucleotide numbers 187 to 804 in SEQ ID NO: 3 or a probe prepared from the nucleotide sequence under a stringent condition, and encodes a protein having an activity of making a bacterium having the protein L-threonine-resistant.

10. The DNA of claim 9 wherein the stringent condition is a condition in which washing is performed at 60 °C, and at a salt concentration corresponding to 1 x SSC and 0.1 % SDS.

add C1

add
C3

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